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**(54) Title:** FLUIDIZED BED METHOD AND PLANT FOR THE HEAT TREATMENT OF SOLIDS CONTAINING TITANIUM

**(57) Abstract:** The present invention relates to a method and a plant for the heat treatment of solids containing titanium and possibly further metal oxides, in which fine-grained solids are heated to a temperature of 700 to 950 °C in a fluidized bed reactor (1). To improve the energy utilization, it is proposed to introduce a first gas or gas mixture from below through a gas supply tube (3) into a mixing chamber (7) of the reactor (1), the gas supply tube (3) being at least partly surrounded by a stationary annular fluidized bed (10) which is fluidized by supplying fluidizing gas. The gas velocities of the first gas or gas mixture as well as of the fluidizing gas for the annular fluidized bed (10) are adjusted such that the particle Froude numbers in the gas supply tube (3) are between 1 and 100, in the annular fluidized bed (10) between 0.02 and 2 and in the mixing chamber (7) between 0.3 and 30.

